

Testing for Lead in Drinking Water in Iowa Schools and Daycares

April 19, 2016

According to the Iowa Department of Public Health, most children in Iowa are lead poisoned from ingesting lead in paint, dust, or soil; not from drinking water with elevated lead levels. Children between 1 and 3 years in age are the most vulnerable to lead poisoning. More information is available at this website about the Iowa Lead Poisoning Prevention Program: <http://idph.iowa.gov/lpp>.

There is a keen interest now about lead levels in drinking water. This document describes the two separate federal programs for the testing of lead in drinking water, which have different purposes and requirements.

Lead and Copper Rule (Iowa Department of Natural Resources, Water Supply Program)
Since 1991, the Safe Drinking Water Act requires all community (CWS) and non-transient non-community (NTNC) public water supply (PWS) systems to comply with the Lead and Copper Rule (LCR). The requirements are designed to test the effect of the water on the in-home plumbing at the highest risk sites, which are selected according to the plumbing criteria. Only a school or daycare that has its own well for its water supply is required to comply with the LCR.

Under the LCR, the sampling sites are single family homes for most community systems; such systems cannot use schools as compliance sample locations. In the home, the cold water tap from the kitchen or bathroom is the sampling location. For schools and daycares that are PWS systems, the cold water taps from the kitchen and bathrooms are the sampling locations.

The number of samples is based upon the population served (5 samples minimum), the sample size is 1000 mL, the site must be unused for at least 6 hours (the whole plumbing system if at all possible), sampling frequency is between semi-annual and triennial during a specific time period, samples are analyzed by a certified laboratory, and compliance is based on the 90th percentile action levels of 0.015 mg/L lead and 1.3 mg/L copper. Exceedance of an action level results in additional studies and requirements, which can include corrosion control treatment.

Important Compliance Note: A CWS may choose to sample in the local schools; if so, the samples must be marked “SP” for Special, since the samples cannot be used for compliance with the LCR. Likewise, an NTNC school may sample its drinking fountains, but those samples must be marked “SP” since the sample sites do not met the LCR requirements.

Lead in Schools (Iowa Department of Public Health, Lead Poisoning Prevention Program)
In 1988, the Lead Contamination Control Act required notification of schools, preschools, and daycare centers of the information regarding lead potential in the drinking water. Testing was encouraged of sites where children would drink the water. EPA provides guidance to schools that are served by municipal water systems in the document *Drinking Water Best Management Practices for Schools and Child Care Facilities Served by Municipal Water Systems* that is available at the following link: <http://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100HGM8.txt>

This guidance recommends that water from all water outlets including drinking fountains and water faucets where water will be used for drinking or cooking be tested for lead. The first draw sample of 250 mL in volume is collected after 8 to 18 hours of inactivity at the fountain or faucet. When the sample result indicates the lead level exceeds 0.020 mg/L, the water outlet should be taken out of service until remediation is completed. EPA has recommendations for maintenance operations and to remove an item from service if needed.

Reduction of Lead in Drinking Water Act

The January 4, 2011 Reduction of Lead in Drinking Water Act restricts the amount of lead that can be found in plumbing parts. This is a law that mandates anyone who sells or installs such parts in the U.S. meet the standards for: pipe, plumbing fittings, fixtures, solder, and flux:

<https://www.epa.gov/dwstandardsregulations/section-1417-safe-drinking-water-act-prohibition-use-lead-pipes-solder-and>

Laboratory Testing Services for Lead and Copper in Drinking Water

There are several laboratories certified by IDNR to test public drinking water samples for lead and copper. These are the certified laboratories that have indicated they will accept samples for a fee.

Contact the laboratory directly for their testing services:

Lab ID	Lab Name	City, State	E-mail	Phone
2	Mangold Environmental Testing (MET)	Storm Lake, IA	bmangold@met-lab.net ; joekelly@met-lab.net	712/732-7786
7	TestAmerica Laboratories	Cedar Falls, IA	mike.mcgee@testamericainc.com ; tom.tjaden@testamericainc.com	319/277-2401
13	Des Moines Water Works Lab	Des Moines, IA	brand@dmww.com ; mitchell@dmww.com	515/283-8704
45	American Water	Belleville, IL	Bill.deckelmann@amwater.com	618/222-4053
61	AgSource Cooperative Services	Ellsworth, IA	dculver@agsource.com	515/836-4444
64	Midwest Laboratories	Omaha, NE	jwurtz@midwestlabs.com ; ken.pohlman@midwestlabs.com	402/334-7770
82	TestAmerica-Chicago	University Park, IL	Karen.leclair@testamericainc.com	708-534-5200
95	Keystone Laboratories	Newton, IA	jeggars@keystonelabs.com ; jking@keystonelabs.com	641/792-8451
98	Eurofins Eaton Analytical	South Bend, IN	matthewhartz@eurofinsUS.com ; dale.piechocki@eurofinsUS.com	574/472-5578
240	PDC Laboratories	Peoria, IA	mtravis@pdclab.com ; jlpayne@pdclab.com	309/692-9688
364	Environmental Science Group	Mt. Juliet, TN	spfalmer@esclabsciences.com ; jmitchell@esclabsciences.com	615/773-9755
397	State Hygienic Laboratory	Ankeny, IA	Michael-wichman@uiowa.edu ; Marcia-valbracht@uiowa.edu	515/725-1600

Contact Information:

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- Schools and daycares (IDPH), and Lead Poisoning Prevention Program (IDPH):
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Iowa Department of Public Health Lead Poisoning Prevention Program: <http://idph.iowa.gov/lpp>
 U.S. EPA's Lead and Copper Rule: <https://www.epa.gov/dwreginfo/lead-and-copper-rule>